

## **BAB 7**

### **SIMPULAN DAN SARAN**

#### **7.1 Simpulan**

Berdasarkan hasil penelitian yang telah dilakukan, maka dapat disimpulkan sebagai berikut:

1. Mayoritas responden memiliki status gizi normal (61,1%), diikuti status gizi obesitas (16,7%), gemuk (14,8%), dan kurus (7,4%).
2. Terdapat 29,6% responden yang positif mengalami kejadian *telogen effluvium* (TE).
3. Hasil penelitian menunjukkan bahwa terdapat perbedaan signifikan dari status gizi normal dan tidak normal dengan kejadian TE ( $p = 0,000$ ). Dapat disimpulkan bahwa status gizi mempunyai peran bermakna terhadap kejadian kerontokan rambut (TE).

#### **7.2 Saran**

Berikut ini adalah beberapa ide atau masukan peneliti yang dapat digunakan sebagai usulan bagi:

1. Tenaga Medis

Tenaga medis diharapkan dapat melakukan kegiatan edukasi kepada masyarakat mengenai TE, tanda-tanda dari TE seperti kerontokan rambut yang difus, dan faktor risiko status gizi terhadap kejadian TE.

## 2. Peneliti Selanjutnya

Peneliti selanjutnya diharapkan agar dapat mengembangkan penelitian yang sudah dilakukan ini dengan meneliti faktor risiko lain yang dapat menyebabkan kejadian TE. Sehingga dapat dipelajari penyebab spesifik dari kejadian TE.

### 1. Masyarakat

Masyarakat dapat mengetahui hubungan status gizi dengan kejadian TE, sehingga dapat menjaga status gizi normal dengan cara melakukan aktivitas fisik dan pola makan yang seimbang.

## DAFTAR PUSTAKA

1. Holmes CJ, Racette SB. The utility of body composition assessment in nutrition and clinical practice: an overview of current methodology. *Nutrients* [Internet]. 2021. [cited 2022 Apr 3]; Vol. 13. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8399582/>
2. Thamaria N. Penilaian status gizi. Kementerian Kesehatan Republik Indonesia [Internet]. 2017. [cited 2022 Apr 3]; Available from: <http://bppsdmk.kemkes.go.id/pusdiksdmk/wp-content/uploads/2017/11/PENILAIAN-STATUS-GIZI-FINAL-SC.pdf>
3. Weir CB, Jan A. BMI classification percentile and cut off points. *StatPearls* [Internet]. 2019 May 15 [cited 2022 Apr 15]; Available from: <http://europepmc.org/books/NBK541070>
4. Kementerian Kesehatan Republik Indonesia. Laporan Nasional Riskesdas 2018. 2019 [cited 2022 Apr 3]; Available from: <https://dinkes.kalbarprov.go.id/wp-content/uploads/2019/03/Laporan-Riskesdas-2018-Nasional.pdf>
5. Perera MH, Ahmed NK, Korrapati NH, Edpuganti S, Bhowmik P, Govindan AK, et al. Hair loss in medical students: a global approach. *International Journal of Progressive Sciences and Technologies* [Internet]. 2021 [cited 2022 Apr 3];28(2):608–18. Available from: <http://ijpsat.ijsht-journals.org>
6. Guo EL, Katta R. Diet and hair loss: effects of nutrient deficiency and supplement use. *Dermatol Pract Concept* [Internet]. 2017 Jan 31 [cited 2022 Apr 4];1–10. Available from: <https://pubmed.ncbi.nlm.nih.gov/28243487/>
7. Muscogiuri G, Barrea L, Laudisio D, Pugliese G, Salzano C, Savastano S, et al. The management of very low-calorie ketogenic diet in obesity outpatient clinic: a practical guide. *J Transl Med* [Internet]. 2019 [cited 2022 Apr 3];17:356. Available from: <https://doi.org/10.1186/s12967-019-2104-z>
8. Stoffel NU, El-Mallah C, Herter-Aeberli I, Bissani N, Wehbe N, Obeid O, et al. The effect of central obesity on inflammation, hepcidin, and iron metabolism in young women. *Int J Obes* [Internet]. 2020 Jun 1 [cited 2022 Apr 4];44(6):1291–300. Available from: <https://pubmed.ncbi.nlm.nih.gov/31974407/>
9. Alshwaiyat N, Ahmad A, Wan Hassan WMR, Al-jamal H. Association between obesity and iron deficiency (Review). *Exp Ther Med* [Internet]. 2021 Sep 7 [cited 2022 Jun 4];22(5). Available from: <https://pubmed.ncbi.nlm.nih.gov/34594405/>
10. Yser H, Turab MA, Kareem JB, Yser HT, Abou Turab MK, Makki UM. Effect of malnutrition, hormones disturbance and malondialdehyde on hair loss in women: patients at Al-Sader educational hospital, Basrah Governorate, Iraq-a case study. *Biochem Cell Arch* [Internet]. 2020 [cited 2022 Apr 10];20(2):5701–8. Available from: [www.connectjournals.com/bca](http://www.connectjournals.com/bca)

11. Hodeib AAH, Neinaa YMEH, Mourad HA, Daba RAS. Role of iron in telogen effluvium among premenopausal women. *Egyptian Journal of Dermatology and Venereology* [Internet]. 2017 [cited 2022 Apr 20];37:56–61. Available from: <http://www.ejdv.eg.net>
12. Alomaish A, Gosadi I, Dallak F, Durayb A, Dallak A, Hakami J, et al. Prevalence of alopecia and its contributing factors among primary healthcare attendees in the Jazan region, Saudi Arabia. *J Family Med Prim Care* [Internet]. 2021 [cited 2022 Apr 9];10(10):3851. Available from: <https://pubmed.ncbi.nlm.nih.gov/34934691/>
13. Asghar F, Shamim N, Farooque U, Sheikh H, Aqeel R. Telogen effluvium: A review of the literature. *Cureus* [Internet]. 2020 May 27 [cited 2022 Apr 3];12(5):2–7. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7320655/>
14. Ozlu E, Karadag AS, Hair and scalp disorders, Kutlubay Z, Serdaroglu S. Telogen effluvium. In *InTech*. [Internet] 2017. [cited 2022 Apr 3]; p. 125–36. Available from: <http://dx.doi.org/10.5772/66975>
15. Legiawati L, Suseno LS, Sitohang IBS, Pratama AI. Hair disorder in cosmetic dermatology venereology outpatient clinic of dr. Cipto Mangunkusumo Jakarta: socio-demographic and clinical evaluation. *Dermatol Reports* [Internet]. 2022 Mar 17 [cited 2022 Apr 4];2–11. Available from: <https://www.scilit.net/journal/59307>
16. Mysore V, Parthasaradhi A, Kharkar R, Ghoshal A, Ganjoo A, Ravichandran G, et al. Expert consensus on the management of telogen effluvium in India. *Int J Trichology* [Internet]. 2019 Jun 1 [cited 2022 Mar 13];11(3):107. Available from: <https://www.ijtrichology.com/article.asp?issn=0974-7753;year=2019;volume=11;issue=3;spage=107;epage=112;aulast=Mysore>
17. Alotaibi M, Moteb A. Telogen effluvium. *J Turk Acad Dermatol* [Internet]. 2018. [cited 2022 Apr 3];12(4):18124–5. Available from: <http://www.jtad.org/2018/4/jtad18124r1.pdf>
18. Mescher AL. Junqueira's basic histology: Text and atlas. 14th edition. Weitz M, Kearns B, Boyle P, editors. Vol. 53, McGraw-Hill Education. 2016. 436–437 p.
19. Grymowicz M, Rudnicka E, Podfigurna A, Napierala P, Smolarczyk R, Smolarczyk K, et al. Hormonal effects on hair follicles. *Int J Mol Sci* [Internet]. 2020 Aug 1 [cited 2022 Apr 5];21(15):1–13. Available from: <https://pubmed.ncbi.nlm.nih.gov/32731328/>
20. Ohn J, Kim KH, Kwon O. Evaluating hair growth promoting effects of candidate substance: A review of research methods. *Journal of Dermatological Science* [Internet]. 2019 [cited 2022 Apr 4];Vol.93;p. 144–9. Available from: <https://www.jdsjournal.com/>
21. Otberg N, Shapiro J, Hair growth disorder, Ahronowitz I, Leslie K. *Fitzpatrick's dermatology in general medicine* [Internet]. 8th ed. Lowell A.

- Goldsmith, Stephen IK, Barbara AG, Amy SP, David JL, Klaus W, editors. Vol. 2, McGrawHills AccessMedicine Clinical library. New York: Mc Graw-Hills; 2019 [cited 2022 Apr 4]. 988–990 p. Available from: <https://medcraveonline.com/JDC/JDC-05-00190.pdf>
- 22. Rambwawasvika H. Alopecia types, current and future treatment. *Journal of Dermatology & Cosmetology* [Internet]. 2021 [cited 2022 Apr 3];5(4):93–9. Available from: <https://medcraveonline.com/JDC/JDC-05-00190.pdf>
  - 23. Erdoğan B, Hair and scalp disorders, Kutlubay Z, Serdaroglu S. Anatomy and physiology of hair. In InTech; 2017. p. 13–24.
  - 24. Rebora A. Telogen effluvium: A comprehensive review. *Clinical, Cosmetic and Investigational Dermatology*. Dove Medical Press Ltd [Internet]. 2019 [cited 2022 Apr 4];Vol.12;p.583–90. Available from: <https://pubmed.ncbi.nlm.nih.gov/31686886/>
  - 25. Harris B. Hair loss and alopecia. *Jurnal Kedokteran dan Kesehatan-Fakultas Kedokteran Universitas Islam Sumatera Utara* [Internet]. 2021 [cited 2022 Apr 3];20(2):159–65. Available from: <https://ojsfkuisu.com/index.php/ibnusina>
  - 26. Shapiro J, Otberg N. Hair loss and restoration. 2nd ed. *Hair Loss and Restoration*. New York: Taylor & Francis Group; 2015. 63–71 p.
  - 27. Yorulmaz A, Hayran Y, Ozdemir AK, Sen O, Genc I, Gur Aksoy G, et al. Telogen effluvium in daily practice: Patient characteristics, laboratory parameters, and treatment modalities of 3028 patients with telogen effluvium. *J Cosmet Dermatol* [Internet]. 2021 [cited 2022 Apr 4]; Available from: <https://pubmed.ncbi.nlm.nih.gov/34449961/>
  - 28. Agrawal P, Prajapati H, Patel K, Nagani S. A clinical study of diffuse hair loss in women in tertiary care hospital. *International Journal of Science and Research* [Internet]. 2018 [cited 2022 Apr 3]; Available from: [www.ijsr.net](http://www.ijsr.net)
  - 29. Cholidah R, Widiaستuti IAE, Nurbaiti L, Priyambodo S. Gambaran pola makan, kecukupan gizi, dan status gizi mahasiswa Fakultas Kedokteran Universitas Mataram, Nusa Tenggara Barat. *Intisari Sains Medis* [Internet]. 2020 May 16 [cited 2022 Apr 4];11(2):416. Available from: <https://isainsmedis.id/index.php/ism/article/view/589>
  - 30. World Health Organization Western Pacific Region, International Association for the Study of Obesity, International Obesity Task Force. The Asia-Pacific perspective: Redefining obesity and its treatment. 2000 Feb [cited 2022 Apr 3]; Available from: [https://apps.who.int/iris/bitstream/handle/10665/206936/0957708211\\_eng.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/206936/0957708211_eng.pdf?sequence=1&isAllowed=y)
  - 31. Braun N, Heinrich U. What can complex dietary supplements do for hair loss and how can it be validly measured-A review. *Sciences (Switzerland)*. MDPI AG [Internet]. 2020 [cited 2022 Apr 4];Vol.10. Available from: <https://www.mdpi.com/2076-3417/10/14/4996>

32. Tagle SAR, Figueira MM, Vial V, Benavides LE, Miteva M. Micronutrients in hair loss. *Our Dermatology Online* [Internet]. 2018 Jul 1 [cited 2022 Apr 3];9(3):320–8. Available from: <http://www.odermatol.com/odermatology/20183/25.Micronutrients-Ruiz-TagleSA.pdf>
33. Muscogiuri G, Barrea L, Laudisio D, Pugliese G, Salzano C, Savastano S, et al. The management of very low-calorie ketogenic diet in obesity outpatient clinic: A practical guide. *Journal of Translational Medicine*. BioMed Central Ltd. [Internet]. 2019 [cited 2022 Apr 5];Vol.17. Available from: <https://translational-medicine.biomedcentral.com/track/pdf/10.1186/s12967-019-2104-z.pdf>
34. Abdulrazak A, Al-Nakash H, Raheem YA. Serum ferritin and body mass index in chronic telogen effluvium among women attending the main dermatological outpatient clinics in Baghdad. *College Medical Journal* [Internet]. 2020 [cited 2022 Apr 3]. Available from: [www.jkmc.uobaghdad.edu.iq](http://www.jkmc.uobaghdad.edu.iq)
35. Almohanna HM, Ahmed AA, Tsatsalis JP, Tosti A. The role of vitamins and minerals in hair loss: A review. *Dermatol Ther (Heidelb)* [Internet]. 2018 Dec 13 [cited 2022 Apr 3]. Available from: <https://doi.org/10.6084/>
36. Lopez ACC, Boonstra AM, Zimmermann MB., Aeberli IH. In overweight and obese women, dietary iron absorption is reduced and the enhancement of iron absorption by ascorbic acid is one-half that in normal-weight women. *American Journal of Clinical Nutrition* [Internet]. 2015 Dec 1[cited 2022 Apr 3];102(6):1389–97. Available from: <https://pubmed.ncbi.nlm.nih.gov/26561622/>
37. Lee EY, Nam YJ, Kang S, Choi EJ, Han I, Kim J, et al. The local hypothalamic-pituitary-adrenal axis in cultured human dermal papilla cells. *BMC Mol Cell Biol* [Internet]. 2020 Jun 10 [cited 2022 Apr 5];21(1). Available from: <https://pubmed.ncbi.nlm.nih.gov/32522165/>
38. Malkud S. A hospital-based study to determine causes of diffuse hair loss in women. *Journal of Clinical and Diagnostic Research* [Internet]. 2015 Aug 1 [cited 2022 Apr 25];9(8):WC01–4. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4576621/>
39. Purnomo W, Bramantoro T. Pengantar metodologi penelitian bidang kesehatan. Surabaya: Pusat penerbitan dan percetakan universitas airlangga; 2018.
40. Öner Ü, Akdeniz N. Nonscarring scalp alopecia: Which laboratory analysis should we perform on whom?. *Turk J Med Sci* [Internet]. 2021 [cited 2022 Oct 24];52(1):188–94. Available from: <https://pubmed.ncbi.nlm.nih.gov/34688244/>
41. Chandra S, Gupta N, Patel SK. Study of iron status indicators in different phases of menstrual cycle in first year medical college females. *Int J Res Med Sci* [Internet]. 2017 [cited 2022 Apr 3];5(1):46–9.

42. Cristina Fernandez-Jimenez M, Moreno G, Wright I, Shih PC, Vaquero MP, Remacha AF. Iron Deficiency in Menstruating Adult Women: Much More than Anemia. *Women's Health Report* [Internet]. 2020 [cited 2022 Apr 25];1;1,26-35. Available from: <http://online.liebertpub.com/doi/10.1089/whr.2019.0011>
43. Al-Alimi AA, Bashanfer S, Morish MA. Prevalence of Iron Deficiency Anemia among University Students in Hodeida Province, Yemen. *Anemia* [Internet]. 2018 [cited 2022 Oct 24];(1);1-7. Available from: <https://doi.org/10.1155/2018/4157876>
44. Fernandez-Jimenez MC, Moreno G, Wright I, Shih PC, Vaquero MP, Remacha AF. Iron Deficiency in Menstruating Adult Women: Much More than Anemia. *Women's Health Reports* [Internet]. 2020 Jan 1 [cited 2022 Oct 24];1(1):26-35. Available from: <http://online.liebertpub.com/doi/10.1089/whr.2019.0011>
45. Supit ED, Mayulu N, Bolang ASL, Kawengian S. Aktivitas Fisik dan Status Gizi Mahasiswa Saat Pandemi COVID-19. *Jurnal Biomedik:JBM* [Internet]. 2021 Mar 29 [cited 2022 Nov 16];13(2):180–4. Available from: <https://ejournal.unsrat.ac.id/index.php/biomedik/article/view/31763>
46. Dayinta N, Ermona N, Wirjatmadi B. Hubungan Aktivitas Fisik Dan Asupan Gizi Dengan Status Gizi Lebih Pada Anak Usia Sekolah Dasar Di Sdn Katabang 1 Kota Surabaya Tahun 2017. *Amerta Nutrition* [Internet]. 2018 Mar 12 [cited 2022 Nov 1];2(1):97–105. Available from: <https://ejournal.unair.ac.id/AMNT/article/view/7847>